



Work Elements and Definitions by Category

EC = Environmental Compliance

This is the list of 77 work elements for Fiscal Year 2007
Contracts that start in this fiscal year must use work elements from this list.

BPA Internal Operations Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
5	Land Purchase	This is a BPA Internal-use only work element. BPA uses this work element to directly wire money to escrow associated with real estate transactions. This work element only covers the purchase price or option of the land or easement (it may include escrow, title, and/or closing costs). Any work performed by BPA's Transmission Business Line (TBL) in support of the real estate transactions shall be covered by WE# 6, TBL Work (also a BPA Internal-use only work element).	ü	ü	ü	ü
6	TBL Work	This is a BPA Internal-use only Work Element. BPA uses this work element for any work the Transmission Business Line provides in support of a fish and wildlife project. May include appraisal review, appraisals, help in development of an MOA, real estate negotiations, survey/photogrammetry, and GIS work. Additionally, relocation costs associated with a land purchase are captured here.				ü
182	PIT Tags	This is a BPA Internal-use only Work Element. BPA uses this work element to capture the cost of PIT tags purchased by BPA on behalf of the contractor(s). While this work element is not included in the contractor's statement of work, it is a project expense. Use WE# 158: Mark/Tag Animals, for contractor expenses associated with ordering and/or implanting the tags in fish or wildlife.			ü	



Environmental Compliance Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
165	Produce Environmental Compliance Documentation	Covers any work by the Contractor to assemble, gather, acquire, or prepare documents in support of obtaining environmental compliance from BPA, providing maps, drafting a Biological Assessment, obtaining permits, conducting public involvement activities, completing an archaeological survey, etc.). In all cases, environmental compliance work done by the Contractor must be separated from all other work. It is not permitted to combine environmental compliance activities with any other work element.		ü		

Planning and Coordination Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
99	Outreach and Education	Covers work to educate or communicate with the public. Includes conducting classes, seminars, workshops, training, symposia, and conferences. Excludes work to coordinate landowners or other direct participants in on-the-ground conservation (include this type of coordination as part of the associated implementation WE), or work to identify and select new projects (WE# 114: Identify and Select Projects).		ü		ü
114	Identify and Select Projects	Covers work by the contractor to identify, prioritize, assess, and ultimately select projects. Often associated with Model Watersheds, or habitat restoration programs that coordinate multiple projects within a larger umbrella project. Coordination work that helps identify and select projects or sites should be covered under this work element.				
115	Produce Inventory or Assessment	Covers inventories and assessments specifically designed to support future implementation actions. Can include passage inventories, habitat condition inventories, or watershed assessments. Does not cover ongoing passage and habitat monitoring.	ü			ü
119	Manage and Administer Projects	Covers the administrative and technical work by the contractor to fulfill BPA's programmatic and contractual requirements such as financial reporting (accruals), and development of an SOW package (includes SOW, budget, property inventory).				



Planning and Coordination Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
122	Provide Technical Review	The review of technical details, including but not limited to engineering plans, restoration plans, project selection, RM&E methods, and deliverable approval.			ü	
174	Produce Plan	Covers a wide range of planning activities including but not limited to operation plans, management plans, maintenance plans, implementation plans, restoration plans, research, monitoring, and evaluation (RM and E) plans, Hatchery Genetic Management Plans (HGMPs), feasibility studies, and surveys. Covers both strategic plans that will influence multiple projects and site-specific plans. Use WE# 168: Council 3-step Process: Step 1, or WE# 169: Council 3-step Process: Step 2, to cover labor and materials for the submission of documents required by the NPCC's 3-step process.			ü	
175	Produce Design and/or Specifications	Covers all work associated with the preparation of engineering or technical drawings, specifications and/or budgets required for the construction/installation of any structure or facility. May include ancillary work such as land surveying, photogrammetric surveys, field surveys, etc. For construction work not requiring a formal design (e.g., installation of a barbed-wire fence), this work may be included as a milestone under the corresponding work element.			ü	ü
189	Regional Coordination	Refers to coordination work that covers a large portion of the Columbia River Basin. Coordination which directly supports other project work should be covered in the details of the associated work element. Coordination work which helps identify or select projects and/or sites should be covered under WE# 114: Identify and Select Projects.				



Reporting Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
132	Produce (Annual) Progress Report	<p>This work element covers written reports of results that typically are submitted to BPA at the end of a contract period for dissemination to the public. Previously called "Annual" reports, these progress reports may cover less than a year or multiple years. They are not required or appropriate for all contracts in all years, but are particularly important when useful results are not captured by standard Pisces metrics or status reports.</p> <p>Progress Reports come in two types. "Technical" reports are used for contracts that develop RM&E Methods and Designs (WE# 156), Analyze/Interpret Data (WE#1 56), and/or Collect/Generate/Validate substantial amounts of data (WE# 157) when it is important also to report the data collection methods. Technical progress reports often use a scientific format, especially when it is important to describe the methods that produced the results. An alternative, less common format could follow the flow of activities described in the contract's statement of work (SOW-based format). After being uploaded to Pisces, Technical reports will be published as Department of Energy Technical Reports, per standard practice.</p> <p>"Non-technical" progress reports also will be uploaded to Pisces, which will provide public access, but will not be "published" as a DoE Technical Report. Non-technical reports may use a range of formats, typically based on the SOW activities, but potentially free-form. They may be mostly photos, simple summaries of data, or a brief description of lessons learned. The most important considerations are that they document completion of the contract's work and capture important information that would not be readily available through other means (e.g., Pisces metrics and status reports).</p>				
141	Produce Status Report	<p>This work element covers any report required or produced for a contract, except those specifically covered under other work elements (e.g., WE# 132: Produce (Annual) Progress Report, or WE# 183: Produce Journal Article, or WE# 185: Produce Pisces Status Report). If this work element is used for multiple reports in the same contract, then each report should be listed as a separate milestone.</p>				



Reporting Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
183	Produce Journal Article	This work element applies to manuscripts being submitted for publication. Preliminary analyses towards the publication of a journal article can be covered by WE# 132: Produce (Annual) Progress Report.		ü	ü	
185	Produce Pisces Status Report	<p>This work element covers the reporting of status of milestones and deliverables in each contract. These milestone status reports shall be completed either monthly or quarterly as negotiated between the contractor and COTR.</p> <p>For any other type of status report required or produced for a contract, use WE# 141: Produce Status Report -- except those specifically covered under other work elements (e.g., WE# 132: Produce (Annual) Progress Report, or WE# 183: Produce Journal Article).</p>				

Habitat Improvement Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
29	Increase Instream Habitat Complexity	Work that adds natural materials instream to create habitat features or to improve channel morphology. Includes J-hooks, barbs, vortex weirs, and large woody debris (LWD). Can include work to stabilize or maintain a streambank, such as riprap. If structures are being added primarily to overcome a fish passage barrier, use WE# 184: Install Fish Passage Structure. If replacing or maintaining an existing structure use WE# 186: Operate and Maintain Habitat/Passage.	ü	ü	ü	ü



Habitat Improvement Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
30	Realign, Connect, and/or Create Channel	Active attempts to directly add sinuosity, meanders, side channels, and/or off-channel habitats (e.g., sloughs or oxbows). May include reconnection of historical channels (either via excavation or diversion of existing streamflow), excavation of new channels, and/or significantly improving the functionality of existing channels (e.g., creating a "natural" spawning channel for chum). If work is solely to add structures/features that change hydraulic conditions and that may eventually cause channel realignment, then use WE# 29: Increase Instream Habitat Complexity. If the work includes removal of a barrier for fish passage into upstream reaches of the existing channel, then use WE# 84: Remove/Install Diversion, WE# 85: Remove/Breach Dam, or WE# 184: Install Fish Passage Structure, since the miles of opened habitat must be recorded as a metric.	Ü	Ü	Ü	Ü
31	Conduct Controlled Burn	Use of fire to improve habitat.	Ü	Ü	Ü	Ü
33	Decommission Road/Relocate Road	Any activity that makes a road unusable including adding berms, pits, boulders or logs, and/or ripping or obliterating the road with heavy equipment that may involve re-contouring the slope. Also use for building a road in a more appropriate location to replace a decommissioned road. If decommissioning by planting vegetation or seeding use WE# 47: Plant Vegetation. If removal of fish barrier (e.g., culvert) is included, also use WE# 84: Remove/Install Diversion, WE# 85: Remove/Breach Dam, or WE# 184: Install Fish Passage Structure. If work also involves channel realignment, use WE# 30: Realign, Connect, and/or Create Channel in addition to this work element.	Ü	Ü	Ü	Ü
34	Develop Alternative Water Source	Includes, but not limited to, watering troughs, spring and well development, guzzler installation.	Ü		Ü	Ü
35	Develop Pond	Develop a pond and its surrounding habitat for resident fish and/or waterfowl. May involve the installation of a water control structure or excavation. Does not apply to sediment control ponds (WE# 55: Upland Erosion and Sedimentation Control); acclimation ponds (WE# 171: Build Artificial Production Facility); or wetlands (WE# 181: Create, Restore, and/or Enhance Wetland).	Ü		Ü	Ü
36	Develop Terrestrial Habitat Features	Includes the installation and/or creation of structures for the benefit of wildlife species, including, but not limited to, nest boxes/platforms, avian perches, snags, and artificial roosting sites.	Ü	Ü	Ü	Ü



Habitat Improvement Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
38	Improve Road	Work designed to eliminate or reduce erosion, sediment, and/or toxic run-off from reaching streams, rivers, or wetlands from roads currently in use.	Ü	Ü	Ü	Ü
40	Install Fence	Work to install various types of fence and/or gates. Can also include cattle guards or water gaps for livestock.	Ü	Ü	Ü	Ü
44	Enhance Nutrients Instream	Addition of fish carcasses, or direct nutrient introduction via fertilizer to improve biological diversity in a stream or river.	Ü		Ü	Ü
47	Plant Vegetation	Install plants for purposes such as erosion control, roughness recruitment, shading, restoring native habitat, forage enhancement, road removal. May be riparian or upland and includes seeding. If maintaining vegetation, use WE# 22: Maintain Vegetation.	Ü	Ü	Ü	Ü
48	Practice No-till and Conservation Tillage Systems	Includes establishing conservation tillage systems that focus on increased crop residue during subsequent crop seeding, and/or the reduction or elimination of traditional tilling practices. Work may also include the purchase of chaff chopper/spreaders and other small equipment (generally co-operatively purchased) designed to aid in no- or reduced- till operations and crop residue enhancement.	Ü	Ü	Ü	Ü
52	Remove Mine Tailings	Work to remove or re-contour remnant landscape effects from old mining operations. Could be terrestrial or aquatic in nature.	Ü	Ü	Ü	Ü
53	Remove Vegetation	Removal, either mechanical, biological, or chemical, of one or more plant species or a number of individuals of a plant species. Often are exotic or non-native plants, naturalized plants, or undesirable native plants. Includes the removal of both aquatic and terrestrial plants. Includes tree stand manipulation in order to create forage openings. If you are re-treating an area or using a different technique in a previously treated area, use WE# 22: Maintain Vegetation. WE# 53: Remove Vegetation, should only be used if you have a new objective or are treating a new area.	Ü	Ü	Ü	Ü
55	Upland Erosion and Sedimentation Control	May include the installation of water bars, gully plugs and culvert outlets, grassed waterways, grade stabilization structures, sediment catchment ponds/basins, and removal of drainage pipes and other blockages to specifically prevent a sediment slump or landslide. Does not include improvements to roads (for that work, use WE# 38: Improve Road).	Ü	Ü	Ü	Ü



Habitat Improvement Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
180	Enhance Floodplain	Refers to the removal or breaching of a dike to restore floodplain function or the enhancement of a floodplain through the addition of large woody debris. May also involve the installation of a tidegate or water control structure.	Ü	Ü	Ü	Ü
181	Create, Restore, and/or Enhance Wetland	Refers to the creation, restoration, or enhancement of a wetland. May include a water control structure, a tidegate, dike removal or breaching, re-contouring, and excavation.	Ü	Ü	Ü	Ü
190	Remove and/or Exclude Animals	Removal or relocation of non-native or undesirable fish and wildlife species and/or any actions employed to exclude non-native or undesirable fish and wildlife species from a particular area. Examples of removal include the removal of bullfrog egg masses and adults or removal of Northern pikeminnows. Examples of exclusion activities include the installation of a fish passage barrier to exclude non-native fish from high mountain lakes. Fencing activities designed to exclude livestock should use WE# 40 Install Fence.	Ü		Ü	Ü

Habitat/Passage O&M Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
22	Maintain Vegetation	Activities that include herbicide application, plant competition reduction (scalping, mats), mowing, irrigation, fertilization, prevention or reduction of animal damage (browse repellents, tree tubes).	Ü		Ü	Ü
26	Investigate Trespass	Efforts involved with establishing whether trespass is occurring (human or livestock). For fence maintenance use WE# 186: Operate and Maintain Habitat/Passage.			Ü	Ü
27	Remove Debris	Removal of items such as trash, old buildings, and abandoned equipment from water or land. Does not include removal of a diversion or instream structure. For removal of organic matter when cleaning screens use WE# 186: Operate and Maintain Habitat/Passage.	Ü		Ü	Ü



Habitat/Passage O&M Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
28	Trap and Haul	Work to capture and transport fish usually by means of trucking or barging for the purpose of assisting upstream and/or downstream migration and/or fish salvage operations. If trapping and hauling for predator control use WE# 190 Remove or Exclude Animals. If installing a fish trap, use WE# 70: Install Fish Monitoring Equipment.	Ü	Ü	Ü	Ü
186	Operate and Maintain Habitat/Passage/Structure	Operation and maintenance of habitat features including, but not limited to, fences, instream structures, passage facilities, sediment control structures, and off-site water developments. Also includes the maintenance of residences, sheds, barns, and other buildings associated with habitat/passage projects. Use WE# 188: Provide Access and Public Information for maintenance of access roads, parking areas, signs, and kiosks. Use WE# 61: Maintain hatchery, for operation and maintenance of facilities and structures associated with hatcheries. Use WE# 22: Maintain Vegetation for vegetation maintenance.	Ü		Ü	Ü
188	Provide Access and Public Information	Installation and/or maintenance of signs, kiosks, information boards, access roads, road closures, and parking areas. You should use this WE for trespass signing rather than WE# 26: Investigate Trespass. Also, WE# 61: Maintain Hatchery, should be used for this kind of work pertaining to hatchery operations and WE# 38: Improve Road, should be used for road work associated with habitat improvement by reducing erosion.	Ü			Ü

Instream Passage Improvement Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
69	Install Fish Screen	Work to install or replace a fish screen associated with a diversion or pump. Typical screen types include rotary drum, flat plate or traveling. The design of complex or large-scale screens is typically a separate work element. See WE# 175: Produce Design and/or Specifications.	Ü	Ü	Ü	Ü



Instream Passage Improvement Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
80	Install Siphon	Covers work that installs a siphon, flume or other structure to separate canal flow from stream flow where the two have been intermingled as part of past irrigation development, resulting in fish using the natural stream course for passage and rearing. The design of these structures is typically a separate work element and should use WE# 175: Produce Design and/or Specifications.	Ü		Ü	Ü
84	Remove/Install Diversion	Work that removes, replaces, or avoids creating a fish passage barrier associated with a stream diversion, including push-up dams. May be part of a diversion consolidation effort that reduces the number of diversion sites. Includes installation of alternative ways to divert stream flow without creating passage barriers caused by traditional diversion structures. Examples include, but are not limited to, infiltration galleries, instream diversion pumps, and lay-flat stanchions.	Ü	Ü	Ü	Ü
85	Remove/Breach Dam	Work that facilitates fish passage over a natural (e.g., beaver) or human-made dam by breaching or removal. If the dam is part of a diversion, use WE# 84: Remove/Install Diversion.	Ü	Ü	Ü	Ü
184	Install Fish Passage Structure	Install, replace or modify structures when the intent is to improve fish passage and/or flow, typically by removing or modifying a full or partial instream barrier. Includes the following types of structures: fish ladders, bridges, culverts, jump pools, and weirs. Use WE# 70: Install Fish Monitoring Equipment, for weirs installed primarily to restrict fish passage for the purpose of monitoring or collecting fish (e.g., picket weirs). Design of complex or large-scale fish passage structures is often a separate work element (see WE# 175: Produce Design and/or Specifications).	Ü	Ü	Ü	Ü

Land Acquisition / Conservation Easement Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
87	Prepare HEP Report	Report to present the findings of the Habitat Evaluation Procedure (HEP) survey conducted by the Regional HEP team.				Ü
92	Lease Land	Includes riparian, grazing, and multiple-use leases, typically for multiple years.	Ü	Ü	Ü	Ü



Land Acquisition / Conservation Easement Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
172	Conduct Pre-Acquisition Activities	This work element includes the majority of the steps that are required before fee title or a conservation easement can be acquired for a tract of land. The steps are: perform appraisal, perform title searches, perform land boundary surveys, provide legal descriptions, perform hazardous waste assessment, and identify minimum habitat units. For easements, this work element would also include the definition of the easement terms and conditions.				ü

Hatchery / Major Construction Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
168	Council 3-step Process: Step 1	<p>Activities necessary to coordinate Step 1 of the NPCC's 3-step process. These activities include submitting required documents, responding to Council/ISRP questions, developing and providing additional materials, attending meetings with Council/ISRP, and making appropriate revisions, etc. Step 1 is the conceptual/preliminary phase of the process. The key products needed for a Council decision are: 1) a program master plan and 2) an initial facility layout and cost estimate. Some level of feasibility/concept design is normally needed to develop a layout and cost estimate.</p> <p>Projects that fall under the Council's 3-Step Review Process include artificial production programs/facilities, other major or complex construction programs, programs that address an entire watershed, or actions that substantially deviate from a subbasin plan.</p> <p>This work element is a planning/coordination function broken out under a discrete work category because it is a unique feature of the F&W Program.</p>			ü	ü



Hatchery / Major Construction Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
169	Council 3-step Process: Step 2	<p>Activities necessary to coordinate Step 2 of the NPCC's 3-step process, the 'progress review' phase of the process. These activities include submitting required documents, responding to Council/ISRP questions, developing and providing additional materials, attending meetings with Council/ISRP, and making appropriate revisions, etc. For step 2, the key documents needed for a Council decision are: 1) NEPA and ESA review and 2) preliminary design leading to a more refined facility plan and cost estimate.</p> <p>This work element is a planning/coordination function that is broken out under a discrete work category because it is a unique feature of the F&W Program and needs to be tracked separately. This work element captures the labor and materials associated with coordinating the Step 2 process. It does not include any work associated with creating or revising any of the required documents. See Related Work Elements section, on the work element background page.</p>			ü	ü
170	Council 3-step Process: Step 3	<p>Activities necessary to coordinate Step 3 of the NPCC's 3-step process, the 'final design' phase of the process. These activities include submitting required documents, responding to Council/ISRP questions, developing and providing additional materials, attending meetings with Council/ISRP, and making appropriate revisions, etc. For step 3, the key documents needed for a Council decision are: 1) 100% design plans and specifications and 2) a 100% cost estimate, with a 10-15% contingency.</p> <p>This work element is a planning/coordination function that is broken out under a discrete work category because it is a unique feature of the F&W Program and needs to be tracked separately. This work element captures the labor and materials associated with coordinating the Step 3 process. It does not include any work associated with creating or revising any of the required documents. See Related Work Elements section, on the work element background page.</p>			ü	ü



Hatchery / Major Construction Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
171	Build Artificial Production Facility	Covers all work associated with the construction of a hatchery complex or any structural component of an artificial production facility or satellite facility (e.g., incubation rooms, rearing tanks/ponds, raceways, acclimation ponds, holding ponds, pumps, wells or other water supply, hatchery offices, staff housing, etc.). Also covers the expansion or replacement of any major component.	ü		ü	ü

Hatchery O&M Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
56	Acclimate Juvenile Fish	Includes work performed under contracts solely for acclimation of juvenile fish. If the full range of hatchery fish culture activities is performed under a contract, use WE# 176: Produce Hatchery Fish.	ü	ü	ü	ü
59	Incubate Eggs	Includes work performed under contracts solely for incubation of fish eggs. If the full range of hatchery fish culture activities is performed under a contract, use WE# 176: Produce Hatchery Fish.	ü	ü	ü	ü
60	Maintain Fish Health	Includes the work performed under contracts solely for fish health maintenance, such as fish health monitoring, pathology sampling, laboratory processing of samples, and consultation with fish health professionals.	ü		ü	ü
61	Maintain Hatchery	Includes all maintenance and repair activities associated with fish production facilities, including maintenance of buildings, grounds, raceways, acclimation ponds, net pens, water treatment facilities, equipment, vehicles, etc. This work element is intended to include activities related to care of physical structures and grounds and not the care of fish. For example, work to produce fish would be under WE# 176: Produce Hatchery Fish, or WE# 59: Incubate Eggs.	ü		ü	ü
63	Rear Fish	Includes work performed under contracts solely for rearing of fish, e.g., contracts for net pen rearing of Kokanee. Also describes captive rearing work. If the full range of hatchery fish culture activities is performed under a contract, use WE# 176: Produce Hatchery Fish.	ü	ü	ü	ü



Hatchery O&M Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
64	Spawn Fish	Includes work performed under contracts solely for spawning of adult fish. If the full range of hatchery fish culture activities is performed under a contract, use WE# 176: Produce Hatchery Fish.	Ü	Ü	Ü	Ü
66	Trap/Collect/Hold/Transport Fish - Hatchery	Includes work performed under contracts solely for trapping, collecting, transporting, and/or holding fish (all life history stages) for inclusion in a fish culture program. If the full range of fish culture activities is performed under a contract, use WE# 176: Produce Hatchery Fish, with Milestones for trapping, collecting, transporting, and/or holding fish, as appropriate.	Ü	Ü	Ü	Ü
176	Produce Hatchery Fish	This work element includes the fish culture activities associated with a "typical" hatchery O&M contract: obtaining broodstock, spawning broodstock, incubating fertilized eggs, rearing juveniles, acclimating the juveniles offsite prior to release, and releasing the juveniles into a stream or lake, either onsite or from a separate acclimation facility. Includes transportation of fish or eggs between various locations. Most hatchery O&M contractors can use this work element, "Produce Hatchery Fish," along with WE# 61: Maintain Hatchery, in their SOWs. However, there are hatchery contracts that involve only one or two of these fish culture activities, e.g., acclimation facility O&M contracts. In this case, select the work element (or possibly several) from the following list that best describes the fish culture work associated with the contract.	Ü	Ü	Ü	Ü
187	Put and Take Fisheries	The stocking of a pond, lake or reservoir with hatchery reared fish for recreational fishing purposes. This includes the transport and stocking of the fish, and the operation and maintenance of the recreational facilities, e.g. bathrooms and access roads.	Ü		Ü	Ü



RM & E and Data Management Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
70	Install Fish Monitoring Equipment	Installation of a weir, trap, electronic portal, or other equipment or facility used to monitor fish passage or to collect juvenile or adult fish. This describes the installation of relatively permanent fixed facilities as well as more mobile equipment, like rotary screw traps for smolts. Use this WE when the effort/cost to install is substantial, otherwise installation (and removal) could simply be a milestone under the WE for which the equipment will be used, typically WE# 157: Collect/Generate/Validate Field and Lab Data, or WE# 158: Mark/Tag Animals.	ü		ü	ü
156	Develop RM&E Methods and Designs	Work that develops and tests conceptual, quantitative, and technological tools for application in research, monitoring, and/or evaluation projects. Includes statistical and sampling designs, data definitions, conceptual models, simulation models, tagging and other equipment, software development, and generally any other work that prepares for the implementation of actual data collection/generation. Does not apply to producing an RM&E plan itself (see WE# 174: Produce Plan). Does not apply to models that are developed in the course of analyzing and interpreting existing data, such as multivariate models.				
157	Collect/Generate/Validate Field and Lab Data	Work to collect, create, generate, or capture source data. Includes initial entering of data into a computer spreadsheet/database, developing automated data capture programs/routines and related hardware/software (e.g., PDAs, data loggers, thermographs), preparing metadata, and quality assurance/quality control processes. Also includes taking samples for later analysis (e.g., fish tissues for DNA analysis, macroinvertebrate samples, etc.), and any preparations for collecting data if not covered by another work element. This work element covers most laboratory analyses, which are collecting data from specimens. It also includes generating secondary/derived data when those data are stored in a database for access and use by other parties for analysis like primary data. Capturing data includes entering data into a computer from historical records, digitizing images, and other methods for converting information to digital format.	ü	ü	ü	ü



RM & E and Data Management Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
158	Mark/Tag Animals	Covers activities integral to placing marks/tags on animals. Recognizing that this is a subset of data collection/generation, it has been separated to facilitate tracking the sometimes-significant costs associated with animal marking/tagging. This work element includes capture and bio-sampling activities when they support a primary purpose of placing the mark/tag. It also includes monitoring the effects of the mark/tag on the animals (e.g., tagging mortality), the mark/tag retention/detectability, other QA/QC for the mark/tag data, and creation of associated metadata. It does not include capture activities when the primary purpose is to collect biological data and does not include subsequent mark/tag observations and analysis.	ü	ü	ü	ü
159	Submit/Acquire Data	This work is for transferring data from one spreadsheet/database to another, typically primary data from a field or lab site to a higher-level, secondary regional or national database. It includes both the act of sending and receiving, hardware/software needs for automated uploads/downloads (e.g., transmission and relay links for regular nightly uploads from remote telemonitoring sites), the development and application of data exchange protocols (including QA/QC), and any formatting and documentation required on the sending end to make the transfer. It does not include initial data entry or manipulating (e.g., reformatting) data at the receiving end. This work element explicitly reinforces the importance of transferring data to databases where they will be maintained and accessible, but does not anticipate that this activity will usually require significant effort or costs.			ü	
160	Create/Manage/Maintain Database	Any work that maintains or improves the security, quality, accessibility, or utility of data in a structured database. Includes creation of relational databases; creation of computer applications to manage data, creation of standardized data formats, management of the data within the database, database hardware/software maintenance and improvement, QA/QC, building and maintaining connectivity with interrelated applications (e.g., GIS, web portals), and creation of metadata/documentation and user-support materials, etc. This applies both to larger regional, secondary databases and to local primary databases (can include spreadsheets) maintained on desktops for individual projects. Does not include generation of data queries or reports, except for internal data management.				



RM & E and Data Management Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
161	Disseminate Raw/Summary Data and Results	All work that makes data and information available to professional users, except for written products covered specifically by other work elements. Includes maps, data query systems, internet data distribution, development of online data display tools, library and archival services, and oral and abstract presentations of results to professional audiences. For outreach and education to students, the general public, and other non-professional audiences, see WE# 99: Outreach and Education.			ü	
162	Analyze/Interpret Data	These activities apply analytical tools to render meaning from data for making better management decisions. They go beyond data summaries. Often involving tests of statistical significance, this work element also may include modeling, indices, and synthesis. Typically culminates in resource management recommendations presented in a report of research/evaluation findings or analyses presented as formal publications.		ü	ü	

Water Conservation Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
82	Install Well	Install well to enable groundwater to be used as an alternative to instream flow. Wells installed to provide hatchery or acclimation water supplies should be covered under WE# 171: Build Artificial Production Facility.	ü	ü	ü	ü
148	Install Flow Measuring Device	Includes activities for installing and/or moving electrical flow gauges or other complex flow measuring devices, such as flow gauges using telemetry to transmit data. Devices may be fixed or portable. Actual measurement would occur under WE# 157: Collect/Generate/Validate Field and Lab Data.	ü	ü	ü	ü
149	Install Pipeline	Includes activities related to installing a pipeline as part of a fish and wildlife project. If pipeline is installed for purposes of increasing flow, other options should first be considered to accomplish purpose, such as water transactions or obtaining cost-share for this work element and subsequently transferring conserved water instream.	ü	ü	ü	ü



Water Conservation Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
150	Install Sprinkler	Includes activities related to installing a sprinkler system as part of a fish and wildlife project. If sprinkler is installed for purposes of increasing flow, other options should first be considered to accomplish purpose, such as water transactions or obtaining cost-share for this work element and subsequently transferring conserved water instream.	Ü	Ü	Ü	Ü
151	Line Diversion Ditch	Includes activities related to lining a ditch as part of a fish and wildlife project. If lining of diversion ditch is considered for purposes of increasing flow, other options should first be considered to accomplish purpose, such as ditch consolidation, water transactions or obtaining cost-share and transferring conserved water instream.	Ü	Ü	Ü	Ü

Water Transactions Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
154	Develop and Negotiate Water Right Transaction	Covers initial aspects of completing water right transactions from preliminary evaluation of the viability of a specific transaction opportunity to preparing water transaction. May include: negotiating, proposing, and review of water deals through the Columbia Basin Water Transactions Program process. Does not include general landowner coordination before any transaction opportunity is identified. Includes development of transactions to put more water instream such as split season leases, long-term leases, diversion reduction agreements, permanent water transfers, stored water agreements to increase stream flows, and water exchanges.				
164	Acquire Water Instream	Covers final aspects to complete implementation of water transactions through the Columbia Basin Water Transactions Program process. Work includes steps for payment of funds to water right holder and/or completion of agreement for securing protected water instream. This work element is generally linked with WE# 154: Develop and Negotiate Water Right Transaction.	Ü	Ü	Ü	Ü



Other Work Elements

ID	Work Element Name	Definition	EC Needed	Metrics Needed	Focal Species Needed	Location Needed
98	Other	In rare instances, a contractor may be performing a type of work that is fundamentally different than anything described by existing work elements. In such a case, the contractor should consult with his or her BPA project manager to determine if using the "Other" work element is appropriate.	ü		ü	ü

Notes:

- 1. Work element end date earlier than start date identifies work element that were considered but never used in active contracts.

The above data table is available in [structured text format](#) (.CSV) and in [Excel 2003](#) (.XLS) format.